

to suggest subdivisions, but it is clear that we have two distinct types in the genus *Hemipedina*: 1st, those with two rows of large tubercles, and a wide intertubercular granulated space in the middle of the interambulacral areas; and 2nd, those with four, six, eight or ten rows of nearly equal-sized tubercles in these areas at the equator.

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XX.--*Short Biographical Notice of the late Dr. JOHNSTON of Berwick-upon-Tweed.*

NOT a twelvemonth has elapsed since our scientific public had to mourn the premature death of one of the most distinguished and amiable of its members. Cut off at an age when most men are but beginning to distinguish themselves, at a period of his life when he might have been expected to have even exceeded his previous admirable performances, and at the moment of his attaining a position in which his talents and kindness of disposition might have exerted a most beneficial influence upon the rising generation of naturalists, the death of Edward Forbes produced a unanimous feeling of heart-felt regret amongst all who had received profit from his works, or enjoyed the pleasure of his personal acquaintance.

Scarcely nine months after the remains of Professor Forbes were carried to the tomb, we have again to lament the loss of another of the most distinguished naturalists of our country, Dr. George Johnston of Berwick-upon-Tweed; and although the light of this eminent man has not been extinguished at its noon, like that of the late Professor of Natural History at Edinburgh, he was still so far from the traditionally allotted period of human existence, and his most recent writings showed that the freshness and originality of his mind were so far from being impaired, that none could have anticipated that he was so soon to be taken from amongst us.

But it is not only as an eminent naturalist that Dr. Johnston has a claim upon the regard of the readers of the 'Annals,'—he possesses another title to their attention: from the first establishment of this Journal he was one of its conductors, and to the last moment of his existence he took an active interest in its progress. On this account, therefore, as well as from the interest which must necessarily attach to the history of a man of such great and varied attainments, we cannot allow his death to pass without consecrating a few pages to his memory, by recording the leading events of his quiet but eminently useful life.

Dr. Johnston was born at Simprin in Berwickshire on the 20th of July 1797. His father was a farmer, and was descended from a family, many members of which were well known on the

borders as eminent agriculturists. Whilst he was still a child his father removed to Ilderton, near Wooler, in Northumberland, and here his earliest years were spent. His father died early, and Mrs. Johnston carried on the business successfully after his decease.

George Johnston, the subject of the present notice, was sent to school first in Kelso, and afterwards to the Grammar School of Berwick, where he was under the tuition of Mr. Gardiner, a teacher of some celebrity, who died at a very advanced age only a few months before his gifted pupil. From Berwick he went to the High School at Edinburgh, and in the year 1812 or 1813 commenced his medical studies in that city as a pupil of the celebrated Dr. Abercrombie. During his stay in Edinburgh he lived with Dr. Macrie, the distinguished historian and biographer of John Knox, who was a distant relation of his.

At the conclusion of his apprenticeship he became a member of the College of Surgeons, and afterwards visited London for the sake of hospital practice. Here he also studied under the celebrated anatomist Mr. Brooks. On his return to the North he commenced practice at Belford, a small town in Northumberland, where he met with the amiable and accomplished lady whom he afterwards married, and to whose ready pencil so many of his subsequent works are indebted for most of their illustrations.

In the year 1819 Dr. Johnston took his degree as Doctor of Medicine, and soon afterwards became a Fellow of the College of Surgeons of Edinburgh. He then removed to Berwick, where he established himself as a physician and speedily became one of the leading medical men in that town. Here he remained, devoting himself with unremitting application to the duties of his profession, until his death, which took place on the 30th of July last, at the age of 58.

The immediate cause of Dr. Johnston's death was paralysis, but he appears to have been indisposed for a considerable time. About two years ago, when visiting some patients in the country, he was exposed to a heavy shower of rain, which caused a severe cold, followed by general debility, from which he never entirely recovered. Some weeks since, he was advised to seek repose and relaxation from the anxious duties of his profession at the well-known Bridge of Allan, and it was here, about a fortnight before his death, that he experienced the attack under which he finally succumbed. He was removed to his residence in Berwick, where he shortly afterwards fell into a state of unconsciousness, which lasted with but few and brief intervals until, on the morning of the 30th July, he calmly passed from the scene of his labours.

Upon Dr. Johnston's scientific merits we need scarcely dwell

at any great length. His published works, which must be well known to our readers, are all of the highest excellence, and some of them, although limited to British natural history, have been hailed as standard works upon the subjects of which they treat, even in distant countries.

Dr. Johnston was, however, essentially a British naturalist. Inspired by an ardent love for the beautiful district in which he was born and in which his boyish days were passed, he early devoted his attention to the investigation of the natural objects which this presented to him in profusion; and it is probably to this concentration of his energies upon one particular object, that he has been enabled, in the midst of the arduous and engrossing duties of a large medical practice, to do so much good service to science, and to raise an enduring monument to his own talents and perseverance.

His researches were by no means confined to a single branch of natural history, but Botany and the study of the marine Invertebrate animals occupied the greater part of his attention. One of his first works is a Flora of Berwick-upon-Tweed, published in 1829 and 1831, and about the same time he commenced a series of articles called "Illustrations in British Zoology" in 'Loudon's Magazine of Natural History.' In the same periodical he also published a Natural History of the Mollusca in an epistolary form, which was the foundation of the admirable 'Introduction to Conchology,' published many years after, in 1850. The 'History of British Zoophytes,' which has passed through two editions, and the 'History of British Sponges,' are further contributions to the zoology of this country, whilst his last published work, the 'Botany of the Eastern Borders,' is undoubtedly the most charming botanical work in our language. At the time of his death Dr. Johnston had just completed a Catalogue of the British non-parasitical Worms for the British Museum, which will shortly be published by the Trustees of that establishment.

In the accuracy of his observations and the clearness with which he describes them, he is probably without a rival amongst British zoologists since the days of Montagu; whilst, by a happy geniality of mind, he was enabled to invest subjects, apparently the driest in the world, with a peculiar charm, which renders many of his scientific works and papers interesting even to the general reader. The kindliness of disposition which is almost a necessary concomitant of this tone of mind, rendered him universally beloved in the scene of his professional labours; and, to use the words of a writer in the 'Berwick Advertiser,' "He never visited a house for the first time in his medical capacity which he did not leave as a friend." This general popularity

was employed by him for the advancement of his favourite science, and he was the founder and first President of the Berwickshire Naturalists' Club, an association which has already given to the world some valuable papers upon the natural history of that district, and which has served as the model upon which similar societies have been established in other parts of the country, from the united labours of which we may expect great advantage to the progress of British zoology. In fact, both from his published works and the manner in which his personal influence was employed, we cannot but regard Dr. Johnston as one of those to whom natural history will be most indebted for its advancement in this country. He took great interest in the establishment and progress of the Mechanics' Institute in his town, and delivered many highly successful lectures there, not only on different branches of natural history, but also on the local traditions and antiquities of the Eastern Border, which had occupied a considerable share of his attention.

Another circumstance, which doubtless contributed greatly to his popularity amongst his neighbours, was the active part which he most unexpectedly took in public business during the stormy period of agitation in favour of Municipal and Parliamentary Reform, which intervened between the years 1830 and 1835. Well known as the accomplished physician and the studious philosopher, he appears rather to have astonished the good people of Berwick by a display of judgment and practical ability for which they probably had not given him credit. He speedily, however, took a prominent place in the politics of his native district, and was elected one of the members of the first Town Council in 1835. In this position he remained until the year 1850, and in the course of that period was three times elected to the office of Mayor, and twice to that of Sheriff. He was also for ten years an Alderman of Berwick. In public life he exhibited the same love of truth and kindness of disposition which characterized him in private, and as a man of science; his judgment appears to have been greatly relied on by his colleagues, whilst his tact and good-nature enabled him to command constant respect and affection.

The best proof of this is to be found in the universal regret of his fellow-townsmen at the decease of one whom they justly regarded as "the most distinguished ornament of their town." The Mayor and Members of the Corporation, the Town Council and the members of the medical profession all followed his remains to the grave; the shops were closed during the ceremony of interment, and a great crowd of the townspeople assembled to witness the performance of the last rites over the body of one who had for many years been the object of their love and respect.